



*A campground in development at Belle Isle State Park. Photo by DCR.*

## CHAPTER

# 6

### *Planning Guidelines for Outdoor Recreation*

*“Life is best enjoyed when time periods are evenly divided between labor, sleep, and recreation...all people should spend one-third of their time in recreation which is rebuilding, voluntary activity, never idleness.”*

— Brigham Young

The following resources are useful for planners of outdoor recreation.

### Landowner liability

Liability can be a concern for landowners considering whether to allow public access to private property for the purposes of outdoor recreation. The Code of Virginia includes a recreational use statute — also known as the Landowner Liability Law. The law protects landowners who provide public recreational access from being held liable for injury or damages, provided the landowner does not charge a fee for access, and there is no gross negligence or “willful or malicious failure to guard or warn against a dangerous condition, use, or structure” on the property.

The law also limits the liability of landowners who enter into a lease agreement with state agencies. In 1994, the code was amended to include easements for access to public parks, historic sites or other public recreation.

Ultimately, sportsmen are responsible for their own safety and for damage they cause to the property of others.



Photo by DGIF.

### Resources about hunting on private lands

A Landowner's Guide to Working with Sportsmen in Virginia (Virginia Cooperative Extension)  
<http://pubs.ext.vt.edu/420/420-035/420-035.html>

Hunting on Private Property (Virginia Department of Game and Inland Fisheries)  
<http://www.dgif.virginia.gov/hunting/regulations/privateproperty.asp>

### Outdoor recreation planning guidelines

#### Recreation planning guidance

The Society of Outdoor Recreation Professionals, a nonprofit organization serving the outdoor recreation profession, provides resources for general outdoor recreation planning technical assistance.

#### Carrying capacity and guidelines for outdoor recreation planning

References and evaluation options for outdoor recreation carrying capacity include an overview of site analysis, planning factors, site design and park use standards. In addition, techniques for monitoring carrying capacity and limiting recreation use to maintain quality experiences are included.

#### Crime prevention in public spaces

Planning, design and management for outdoor recreation should be implemented to reduce or eliminate the opportunity for and incidents of crime. This can be accomplished through the application of Crime Prevention Through Environmental Design techniques and principles.

#### Americans with Disabilities Act

Standards for the construction of recreational facilities became enforceable March 15, 2011, as part of the Americans with Disabilities Act. Standards for shared-use paths and outdoor developed areas are under development. As of March 15, 2011, Department of Justice rules regarding “other power-driven mobility devices” apply to all trails, both public and private, for individuals with mobility disabilities. The National





Photo by DCR.

Trails Training Partnership provides accessibility guidance for providing outdoor recreation and trails based on the ADA.

### Environmental review process

The Code of Virginia §10.1-1188 requires state agencies to prepare and submit an environmental impact report for each major state project. A major state project constitutes the acquisition of an interest in land for construction of any state facility, or the construction of any state facility, or expansion of an existing state facility, that costs more than \$500,000. Read a [comprehensive overview](#) of the state's environmental review process.

## Outdoor recreation design standards

### Greenways and Trails Toolbox

The [toolbox](#) is a comprehensive, step-by-step guide to help localities, groups and individuals plan and develop trails of all kinds. Trail professionals and agency experts created the toolbox to enhance trail-building at the grassroots level.

### Playground safety

The Consumer Product Safety Commission's Public Playground Safety Handbook is used to determine whether a playground has features that could lead to injury. Guidelines address issues such as protective surfacing, head-entrapment hazards, entanglement hazards and equipment location. These guidelines are designed for public playgrounds.

Sponsored by the National Recreation and Park Association, the Virginia Recreation and Park Society hosts the National Playground Safety Inspector course, the most comprehensive training program on playground-hazard identification and risk-management methods. Advanced reading and 15 hours of training from playground safety experts prepare participants for the Certified Playground Safety Inspector Examination offered at the end of the course.

### Water access

Guidance for planning and designing public water-access facilities:

The Virginia Department of Game and Inland Fisheries  
<http://www.dgif.virginia.gov/boating/building-boat-ramps.asp>

States Organization for Boating Access  
<http://www.sobaus.org/>

Chesapeake Bay Area Public Access Technical Assistance Report  
<http://www.gpo.gov/fdsys/pkg/CZIC-gv191-42-c47-c48-1990/pdf/CZIC-gv191-42-c47-c48-1990.pdf>

### Wetlands

Wetlands as defined by the U.S. Fish and Wildlife Service (USFWS) include: *Land that has a predominance of hydric soils and that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances does support, hydrophytic vegetation adapted for saturated soil conditions.*

Wetlands are among the most important natural resources in Virginia's landscape. Most people think of wetlands as marshes, swamps and bogs, but wetland types are varied and not always easily identified. The broadest categories of wetlands are known as tidal and nontidal, and they share many of the same functions.

Virginia's tidal wetlands are found along the shorelines of the Atlantic Ocean, the Chesapeake Bay and the tidal portions of rivers and creeks. Vital to commercial and sport fisheries, they provide food and habitat to innumerable species that comprise Virginia's annual harvest of fish from tidal waters. The amount of plant food produced by these wetlands ranges between one and six tons per year, rivaling the production level of intensively farmed agricultural areas. Additionally, coastal tidal wetlands are important to the Atlantic Coastal Flyway for migratory waterfowl. They offer critical habitat essential for the life cycle of many species of wildlife, fish and aquatic organisms. Approximately 35 percent of the nation's rare and endangered species are found in wetland habitats. Wetlands often contain unique plant communities and typically have high biodiversity (Virginia Cooperative Extension, "Status of Wetlands Management," Broomhall and Kerns, Publication number 448-106).

Wetlands are recognized for their value to the environment and the economy by producing resources, enabling recreational activities and providing other benefits, such as pollution control and flood protection. Recreational activities in wetlands include hiking, fishing, bird watching, photography and hunting. Dollars spent on outdoor activities originating on or near wetlands contribute to the economy.

Resource: Environmental Protection Agency, "Economic Benefits of Wetlands," EPA 843-F-06-004, Office of Water, May 2006.

Nontidal wetlands are located throughout all watersheds. They can be difficult to define because they are often fully forested and the ground is dry — except in winter when the soil is saturated with groundwater and rainwater. Nontidal wetlands provide a first line of defense for water quality protection as stormwater runoff flows toward streams, rivers and bays. Where nontidal wetlands are destroyed, increased stormwater runoff and silt from developing watersheds inundate the streams and rivers, leading to the decline of water quality.

Wetlands function as the transitional feature between uplands and the aquatic environment. Because of their position in the landscape, they protect water quality by slowing the erosive force of stormwater and providing flood control through storage of stormwater, thereby protecting life and property. They slowly release stored stormwater and groundwater to surrounding streams and rivers. This function has particular value during times of drought. Another important wetland



*Cumberland Marsh Natural Area Preserve in New Kent County. Photo by DCR.*

function is filtration — the filtering out of nutrient enrichment and other pollutants in captured stormwater. Through filtration of both surface waters and groundwater, wetlands protect local water supply. Dense wetland plants slow down flowing water, allowing suspended silt to be settled onto the wetland where it is captured by the growth of the root system. Silt particles carry pollutants such as phosphorus, which, in great quantities, can be harmful to the aquatic environment. Wetlands also are effective in capturing dissolved pollutants such as nitrogen, which causes algae overgrowth and oxygen depletion in the aquatic environment.

### Regulatory programs for wetlands management

It's estimated that Virginia has lost approximately half of its pre-colonial wetland acreage. There are approximately 1 million acres of wetlands remaining — 75 percent of these are nontidal and 25 percent are tidal. In Virginia, wetland resources are managed primarily by two state agencies operating under corresponding state law: the Virginia Department of Environmental Quality implements the Nontidal Wetlands Act, and the Virginia Marine Resources Commission has state oversight of the local cooperative implementation of the Tidal Wetlands Act. Many other regulatory and nonregulatory entities at local, state, federal and regional levels are involved in wetlands management, research, restoration, and education in Virginia (Comprehensive Wetland Program Plan Commonwealth of Virginia 2011-2015, Executive Summary, DEQ).



Most wetland impacts (usually associated with development) are regulated by federal, state or local governments. Federal law has regulated activities in both tidal and nontidal wetlands under Section 404 of the Clean Water Act. In Virginia, this task falls to the Norfolk District of the Army Corps of Engineers. The office has worked with the Virginia Marine Resources Commission and local wetlands boards to coordinate the 404 program with Virginia's tidal wetlands program. This coordination enables the development of consistent and predictable standards for compliance with tidal wetlands regulations.

Since 1989, DEQ has managed the protection of nontidal wetlands based on combined state and federal authority, providing stability to federal nontidal wetlands regulations in Virginia. In 2001, the corps issued a Section 404 of the Clean Water Act State Programmatic General Permit, allowing DEQ to assume a portion of the wetland impact permitting process. As a result, both agencies now have regulatory authority over stream channels and impacts to stream features are reviewed under the general permit.

All land-disturbing activities should be initiated with a wetland scoping to determine if wetlands exist within the project limits. The person or entity initiating the land disturbance (the permittee) is responsible for this determination and must conduct a wetland delineation. Wetland delineation establishes the boundary between wetlands and uplands (non-wetlands), thereby establishing the location and size of any wetlands present. Permittees generally work with engineering or environmental firms to perform the delineation. Following the delineation, a corps representative confirms the wetland boundaries established. According to state regulation 9 VAC 25-210-45, all wetland delineations shall be conducted in accordance with the "Wetland Delineation Manual, Technical Report Y-87-1, January 1987, Final Report." The manual shall be interpreted in a manner consistent with the corps' interpretation.

### **Nonregulatory programs: Agriculture and forestry wetlands management**

Under the U.S. Department of Agriculture Natural Resources Conservation Service's Field Office Guide, best management practices have been developed to discourage clearing or draining of wetlands and encourage compliance with Section 404 and 401 of the Clean Water Act. The federal 1985 Food Security Act and 1990 Food, Agriculture, Conservation and Trade Act also include financial disincentives to discourage farmers receiving any federal subsidy from clearing or draining wetlands for agricultural purposes. The Wetlands Reserve Program, established by the 1990 FACTA, reimburses Virginia farmers for protecting nontidal wetlands.

The 1993 Forestry Water Quality Law gives the Virginia Department of Forestry authority to stop work and impose civil fines for forest management operations that cause, or could cause, water quality problems. This law has increased DOF responsibility to provide sound recommendations to loggers. It also has led to increased requests from loggers for preharvest BMP consultations with department staff. To respond to the increased demand, DOF has a coastal forestry engineer who specializes in wetlands protection and on-site recommendations for wetlands BMP application.

### **Mitigation of wetland losses**

State regulations for wetlands mitigation and compensation can be found under 9VAC25-210-116. Compensation. Required mitigation and compensation can be either wetland creation or restoration. If neither creation nor restoration is an option, the permittee may purchase wetland credits from an established wetlands bank or pay into an approved in-lieu fee fund.

Compensation for wetland impacts is determined by the kind of wetland impacted. Compensation ratios are based on wetland values and the degree of difficulty in creating the type of wetland destroyed. Forested wetlands are difficult to successfully create and have significant benefit to water quality. They are mitigated at a 2:1 ratio of replacement to loss. Scrub/shrub wetlands are mitigated at a 1.5:1 ratio and emergent wetlands at a 1:1 ratio. Open water impacts (ponds and lakes) are 1:1.

State mitigation and compensation requirements for tidal wetlands can be found in 4 VAC 20-390-10. The criteria for mitigation require that wetlands be preserved on-site in their natural state as much as possible. Appropriate requirements for compensation must be considered only after it has been proven that the loss of the resource is unavoidable and that the project will have the highest public good and private benefit. Tidal wetland losses must be mitigated for at a 1:1 ratio.

Stream mitigation is more complex. A stream assessment must be conducted within the project area to determine the extent of the mitigation that will be required for impacts to both intermittent and perennial streams.

### **Wetland priorities for protection**

In 1986, Congress passed the Emergency Wetlands Resources Act, mandating the U.S. Fish and Wildlife Service and state agencies receiving Land and Water Conservation Funds to prioritize wetlands within each state. Information about this list, the National Wetland Inventory, is at <http://library.fws.gov/WetlandPublications.html>.

Through the inventory, USFWS found that tidal wetlands experienced the highest losses from the 1950s through the 1970s because of urbanization of the coastal plain. Fortunately, the regulatory programs for tidal wetland protection appear to have been effective and recent trends show a net gain in most tidal wetland types.

In recent decades, Virginia has experienced significant population growth in many regions outside the coastal plain. Because of the population trends, forested and scrub/shrub nontidal wetlands were destroyed or converted to other wetland types at a 12-fold increase from the mid-70s through 1990s. This trend shows that Virginia is losing these wetland types faster than other types. As our knowledge of wetland function and value has improved, it has become apparent that both forested and scrub/shrub wetlands have immense value to the protection of Virginia's water quality. Restoration or creation of these wetland types is also the most challenging and costly.

For these reasons, nontidal forested and scrub/shrub wetlands should have the highest priority for protection at this time.

Wetlands protection can be improved by highlighting outdoor recreational opportunities. Bird watching is popular in protected wetland areas because wetlands support many bird species. Flat-water canoeing is a popular recreational activity in marsh wetlands, and can be enhanced by connecting wetlands to upland park areas. All wetland types can be used as outdoor classrooms for environmental education. Lastly, wetlands offer an advantage as habitat buffers to parks and protected uplands.

To help wetland-protection efforts, the Virginia Department of Conservation and Recreation is working to expand the natural areas registry program that provides voluntary, nonbinding protection of exemplary natural areas to include many wetland systems. DCR also will continue to provide appropriate ecological management of wetlands by coordinating multi-agency exotic species eradication programs, detailed hydrologic mapping and monitoring programs, prescribed burn research and restoration of endangered ecosystems and species.

DCR will continue to identify significant wetlands and other natural resources in western and southwestern Virginia. These areas are the most biologically diverse in the state but have the fewest resources to identify and conserve natural areas. Lastly, DCR will provide management-planning data to localities to aid in protection of these resources.

According to Virginia Marine Resources Commission scientists, Virginia's tidal wetlands program in recent years has dramatically reduced the state's tidal wetlands loss. Virginia's "no net loss" policy continues to lower other wetland losses as well. The development of wetland banks and the in-lieu-fee program is moving Virginia toward balancing the wetlands annually lost with wetlands annually gained.

Coordination among all levels of government will continue to be important for managing wetlands. Coordination between state and federal wetlands regulatory programs is important to ensure efficient, predictable and consistent regulation. Coordination with local governments is important because local land-use decisions have a significant effect on the locations of development. If these decisions are made with an understanding of the values and locations of wetlands, conflicts between landowner expectations and the requirements of wetlands regulatory programs can be reduced.

#### Wetland programs

Virginia Department of Environmental Quality

Virginia Marine Resources Commission

U.S. Army Corps of Engineers

U.S. Fish and Wildlife Service

Virginia Institute of Marine Science Wetlands Program, Center for Coastal Resources Management

## Website directory

Virginia Recreational Use Statute  
<http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+29.1-509>

Virginia Cooperative Extension – A Landowner’s Guide to Working with Sportsmen in Virginia  
<http://pubs.ext.vt.edu/420/420-035/420-035.html>

Virginia Department of Game and Inland Fisheries – Hunting on Private Property  
<http://www.dgif.virginia.gov/hunting/regulations/privateproperty.asp>

Society of Outdoor Recreation Professionals – Technical Resources  
<http://www.recpro.org/technical-resources>

Virginia Department of Conservation and Recreation – Crime Prevention Through Environmental Design  
[http://www.dcr.virginia.gov/recreational\\_planning/documents/prc-cpips.pdf](http://www.dcr.virginia.gov/recreational_planning/documents/prc-cpips.pdf)

ADA.gov – Highlights of the Final Rule to Amend the Department of Justice’s Regulation Implementing Title III of the ADA  
[http://www.ada.gov/regs2010/factsheets/title3\\_factsheet.html](http://www.ada.gov/regs2010/factsheets/title3_factsheet.html)

ADA.gov – Department of Justice Rules Regarding Power-Driven Mobility Devices  
[http://www.ada.gov/regs2010/titleII\\_2010/titleII\\_2010\\_regulations.htm#a35137](http://www.ada.gov/regs2010/titleII_2010/titleII_2010_regulations.htm#a35137)

National Trails Training Partnership – Guidance for accessibility in outdoor recreation  
<http://www.americantrails.org/resources/accessible/ADASummFeb00.html>

Virginia Department of Environmental Quality – Overview of Virginia’s Environmental Review Process  
<http://www.deq.state.va.us/Programs/EnvironmentalImpactReview.aspx>

Virginia Department of Conservation and Recreation – Virginia Greenways and Trails Toolbox  
[http://www.dcr.virginia.gov/recreational\\_planning/greentrailtools.shtml](http://www.dcr.virginia.gov/recreational_planning/greentrailtools.shtml)

Consumer Product Safety Commission’s Public Playground Safety Handbook  
<http://www.cpsc.gov/PageFiles/116134/325.pdf>

National Recreation and Park Association  
<http://www.nrpa.org/>

Virginia Recreation and Park Society  
<http://www.vrps.com/>

National Playground Safety Inspector course  
<http://www.nrpa.org/content.aspx?id=413>

Virginia Department of Game and Inland Fisheries – Building Boat Ramps  
<http://www.dgif.virginia.gov/boating/building-boat-ramps.asp>

States Organization for Boating Access  
<http://www.sobaus.org/>

Chesapeake Bay Area Public Access Technical Assistance Report  
<http://www.gpo.gov/fdsys/pkg/CZIC-gv191-42-c47-c48-1990/pdf/CZIC-gv191-42-c47-c48-1990.pdf>

Economic Benefits of Wetlands  
<http://water.epa.gov/type/wetlands/outreach/upload/EconomicBenefits.pdf>

U.S. Army Corps of Engineers – Wetland Delineation Manual, Technical Report Y-87-1, January 1987, Final Report  
<http://el.erdc.usace.army.mil/elpubs/pdf/wlman87.pdf>

U.S. Fish and Wildlife Service – Wetlands Publications  
<http://library.fws.gov/WetlandPublications.html>